# Math 121 - Midterm 1 Suggested Study Problems

Here are problems that are similar to the ones you might see on the exam. Be sure to also review old homework and quiz questions too. The exam will have both multiple choice and short answer questions.

**Visualizing Data** Cht. 1# 1.13, 1.15, 1.17, 1.19, 1.21

*Make sure you know the difference between stem-and-leaf plots and box-and-whisker plots.*

**Describing Data** Cht. 2# 2.15, 2.17, 2.19, 2.21, 2.23

**Normal Distributions** Cht. 3# 3.15, 3.17, 3.19, 3.21, 3.23

*Make sure you can find z-values and percentiles and understand that the z-value is not the same thing as the percentile!*

**Scatterplots and Correlation** Cht. 4# 4.15, 4.17, 4.19, 4.21

**Regression** Cht. 5 # 5.19, 5.23, 5.25

*You should be able to explain the meaning of $r^2$.*

**Two-Way Tables** Cht.6 # 6.9, 6.17

*The book uses the term conditional distributions for both row and column distributions. It also uses the term marginal distribution for the distributions of the totals row and column.*

**Sampling** Cht. 8# 8.17, 8.23, 8.43

*Make sure you know the difference between random error and bias. What is the best way to avoid bias? What is the best way to minimize random error?*

**Experiments** Cht. 9# 9.19, 9.21, 9.23, 9.25, 9.27

*Know the difference between explanatory variables, response variables, and lurking variables.*

**Terminology** The end of each chapter has a one page chapter summary. Make sure you read this, and are familiar with all of the terms that are mentioned in bold-face.